

WHAT IS CLAIMED IS:

1. A method for detecting a format of closed caption data contained in a broadcast signal automatically and displaying the closed caption data, the method comprising:

(a) receiving information including the closed caption data extracted from the broadcast signal;

(b) detecting information on the format of the closed caption data from the received information including the closed caption data and determining the format of the closed caption data; and

(c) decoding the closed caption data according to the determined format of the closed caption data and displaying the closed caption data to a user.

2. The method of claim 1, wherein the format of the closed caption data in (b) or (c) includes one of a format defined by an EIA-608 closed caption standard or a format defined by an EIA-708 closed caption standard.

3. The method of claim 1, wherein (b) comprises:

(b1) extracting a header portion of the closed caption data from the received information including the closed caption data; and

(b2) detecting the information on the format of the closed caption data from the extracted header portion and determining the format of the closed caption data.

4. The method of claim 3, wherein the format of the closed caption data in (b2) includes one of a format defined by an EIA-608 closed caption standard and a format defined by an EIA-708 closed caption standard.

5. The method of claim 2, wherein when the format of the closed caption data detected in (b) is determined as the format defined by the EIA-608 closed caption standard and closed caption data having the format defined by the EIA-708 closed caption standard is received while the closed caption data received in (a) according to the EIA-608 closed caption standard in (c) is displayed to the user, the closed caption data is automatically decoded according to the EIA-708 closed caption standard and displayed to the user.

6. The method of claim 2, wherein when the format of the closed caption data detected in (b) is determined as the format defined by the EIA-708 closed caption standard and closed caption data having the format defined by the EIA-608 closed caption standard is received while the closed caption data received in (a) according to the EIA-708 closed caption standard in (c) is

displayed to the user, the closed caption data is automatically decoded according to the EIA-608 closed caption standard and displayed to the user.

7. The method of claim 3, wherein (b1) comprises sensing a predetermined pattern value corresponding to the header portion and sensing a starting part of the header portion.

8. The method of claim 4, wherein when the format of the closed caption data detected in (b) is determined as the format defined by the EIA-608 closed caption standard and closed caption data having the format defined by the EIA-708 closed caption standard is received while the closed caption data received in (a) according to the EIA-608 closed caption standard in (c) is displayed to the user, the closed caption data is automatically decoded according to the EIA-708 closed caption standard and displayed to the user.

9. The method of claim 4, wherein when the format of the closed caption data detected in (b) is determined as the format defined by the EIA-708 closed caption standard and closed caption data having the format defined by the EIA-608 closed caption standard is received while the closed caption data received in (a) according to the EIA-708 closed caption standard in (c) is

displayed to the user, the closed caption data is automatically decoded according to the EIA-608 closed caption standard and displayed to the user.

10. An apparatus for detecting a format of closed caption data contained in a broadcast signal automatically and displaying the closed caption data, the apparatus comprising:

a receiving unit, which receives information including the closed caption data extracted from the broadcast signal;

a header extraction unit, which extracts a header portion of the closed caption data from the information including the closed caption data received by the receiving unit;

a caption format detection unit, which detects information on the format of the closed caption data from the header portion extracted from the header extraction unit;

a caption formation determination unit, which determines the format of the received closed caption data from the information detected by the caption format detection unit; and

a caption decoder, which decodes the closed caption data according to the format of the closed caption data determined by the caption format determination unit and displays the closed caption data to a user.

11. The apparatus of claim 10, wherein the format of the closed caption data includes one of a format defined by an EIA-608 closed caption standard and a format defined by an EIA-708 closed caption standard.

12. The apparatus of claim 11, wherein when the closed caption data contained in the broadcast signal, received while the caption decoder decodes the closed caption data received according to the format of the EIA-608 closed caption standard, according to the format determined by the caption format determination unit and displays the closed caption data to the user, is determined by the caption format determination unit as closed caption data having the format defined by the EIA-708 closed caption standard, the caption decoder decodes the closed caption data according to the EIA-708 closed caption standard automatically and displays the closed caption data to the user.

13. The apparatus of claim 11, wherein when the closed caption data contained in the broadcast signal received while the caption decoder decodes the closed caption data received according to the format of the EIA-708 closed caption standard according to the format determined by the caption format determination unit and displays the closed caption data to the user, is determined by the caption format determination unit as closed caption data having the format defined by the EIA-608 closed caption standard, the caption

decoder decodes the closed caption data according to the EIA-608 closed caption standard automatically and displays the closed caption data to the user.

14. The apparatus of claim 10, wherein extracting the header portion of the closed caption data is performed by sensing a predetermined pattern value corresponding to the header portion and sensing a starting part of the header portion.

15. A computer readable recording medium on which a program for executing a method for detecting a format of closed caption data automatically and displaying the closed caption data in a computer is recorded, wherein the method comprises:

(a) receiving information including the closed caption data extracted from the broadcast signal;

(b) extracting a header portion of the closed caption data from the received information including the closed caption data;

(c) detecting information on the format of the closed caption data from the extracted header portion and determining the format of the closed caption data; and

(d) decoding the closed caption data according to the determined format of the closed caption data and displaying the closed caption data to a user.